VistaCam iX HD – for HD-quality diagnostics support

Innovative intraoral camera with interchangeable head system

COMPRESSED AIR

SUCTION

IMAGING

DENTAL CARE

HYGIENE

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Vista Cam iX HD – real HD resolution for unrivalled caries diagnostics

Patient communication, caries diagnostics and documentation – all to unrivalled high standards. Dürr Dental camera systems provide valuable support in dental treatments and foster patient understanding of the required treatment measures. Here, VistaCam iX HD sets new standards with its outstanding HD resolution.

Do you desire the highest requirements in terms of image quality, depth of field and ease of use? With its uniquely high resolution and the new, infinitely variable autofocus the VistaCam iX HD system delivers images with unmatched brilliance and sharpness. Combined with the intelligent interchangeable head mechanism, it reliably supports the camera system in the diagnosis and early detection of caries, as well as in plaque visualisation. At the same time, it makes your treatment recommendations easier for patients to understand.

Key features:

- Brilliant HD image quality even in video mode
- Infinitely variable autofocus enables macro to extraoral images
- Software evaluation to detect caries lesions and display plaque using the fluorescence method (Proof interchangeable head)
- Diagnostic aid for detection of proximal caries – without any exposure to X-ray radiation thanks to the use of infrared technology (Proxi interchangeable head)

Slim, ergonomic design

Optimised workflow – with a high level of patient comfort: The high-quality design of VistaCam iX HD with its narrow, rounded head enables easy access even to the back molars. Buttons on both the top and bottom of the device offer optimal support for your workflow since there is no need to change your grip. The camera can be ergonomically triggered by hand and emits a tactile signal (vibration) once the image has been successfully taken. In addition you can also individually select the time interval after which the camera switches off automatically (motion sensor). If the camera is set down directly into its holder it switches off immediately. The lenses of the interchangeable heads are equipped with scratch-resistant protective glass for a long service life.

Cam interchangeable head

Intraoral, extraoral and macro images in real HD quality

Photos and videos in HD

Maximum image quality for the most demanding requirements: With real HD resolution, the camera system will deliver crystal clear HD images even on large screens. Thanks to the new, infinitely variable autofocus the images can be created particularly quickly and easily. Regardless of whether you need intraoral, extraoral or macro images. With VistaCam iX HD you can also record videos in the same HD resolution as photos. Twin LEDs provide optimized and homogeneous illumination.

Intraoral image*

Intraoral image*

Macro image*

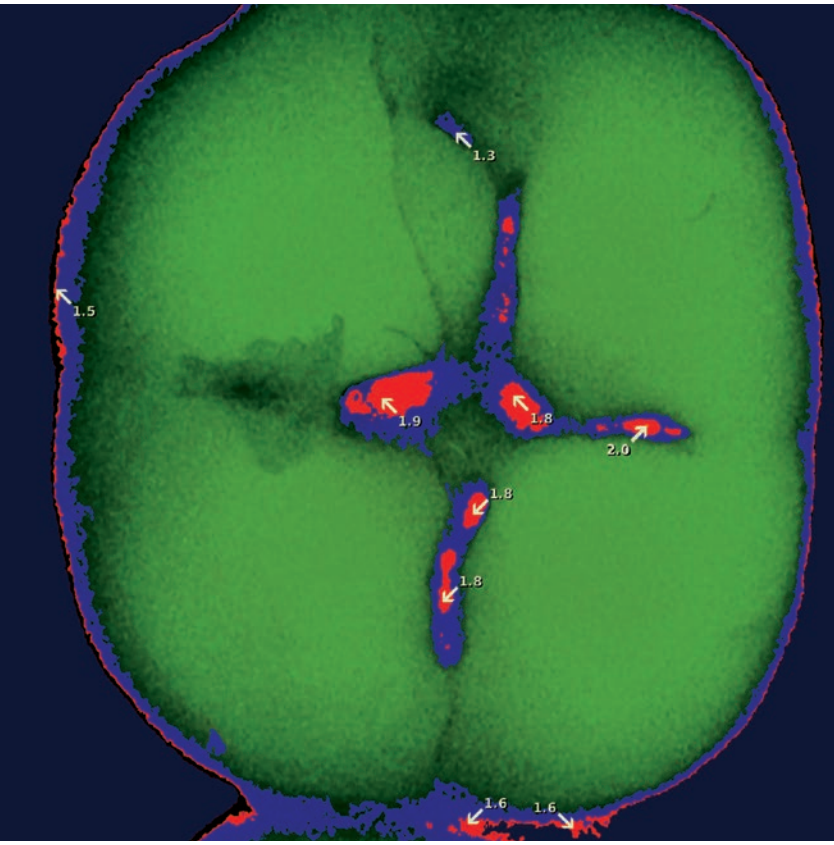
Extraoral image

1 Autofocus
2 Exposure button

*By courtesy of MUDr. Heda Dengel, Remseck

Proof interchangeable head

Reliable detection of caries and plaque



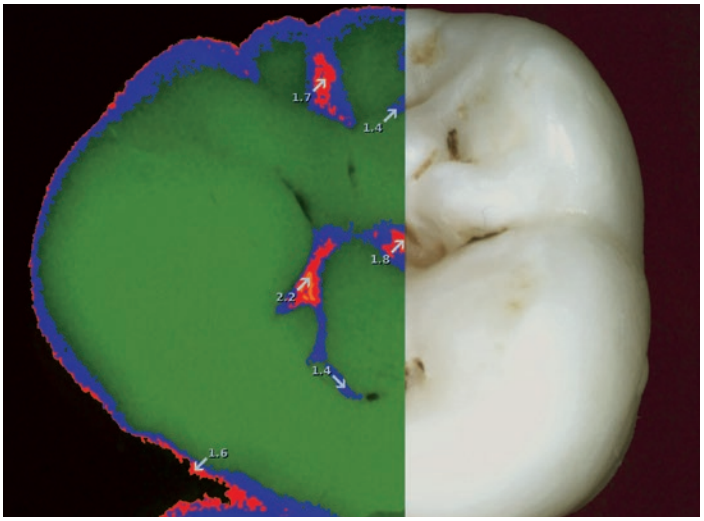
With the Proof interchangeable head, any carious lesions detected are rated on a colour scale and assigned a numerical value.

0 – 1.0	Healthy tooth enamel
1.0 – 1.5	Early stages of enamel caries
1.5 – 2.0	Deep enamel caries
2.0 – 2.5	Dentine caries
> 2.5	Deep dentine caries

You will simply see more – the Proof interchangeable head uses software for easy visualization of occlusal and surface caries, plaque on occlusal and smooth surfaces, as well as dental calculus. For the analysis of carries activity, both colours and numbers are used to display the result. The violet light of the LEDs activates the metabolic products of cariogenic bacteria and makes them glow red. By contrast, healthy tooth enamel can be identified by its green fluorescence. Thus making diagnosis easy and reliable.

Key features:

- Software analysis for the detection of caries lesions
- Visualisation of plaque during professional dental cleaning and for communication with the patient
- Monitoring of caries progression
- Monitoring of caries removal during excavation

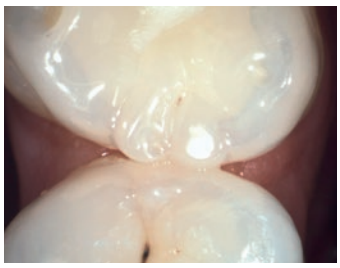


Visualisation of carious areas

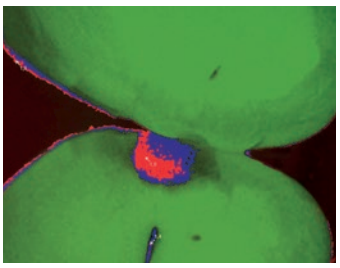
As an illustration, here is a direct comparison between an image taken with a caries filter and an intraoral image. In the image created with the Proof interchangeable head (left) the caries findings can be reliably identified in greater detail. In this example, the early-stage caries (blue) and deep enamel caries (red) are easy to spot.

Caries detection with the Proof interchangeable head

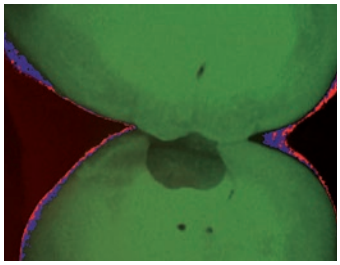
During the excavation, the Proof interchangeable head of the VistaCam iX HD can also be used to reliably demonstrate the progress of caries removal. The intraoral image shown here (Fig. 1) reveals the initial clinical situation: discolouration is evident on tooth 15. The subsequent image (Fig. 2) was taken for checking purposes immediately after the site was opened up. It shows the image taken with the Proof interchangeable head, which makes it easier to distinguish between the carious region on tooth 15 (red) and the healthy tooth enamel (green). Finally, the intraoperative check seen in Fig. 3 confirms that all of the carious regions have been fully removed.



Intraoral image (Fig. 1)*



Monitoring image (Fig. 2)*



Intraoperative check (Fig. 3)*

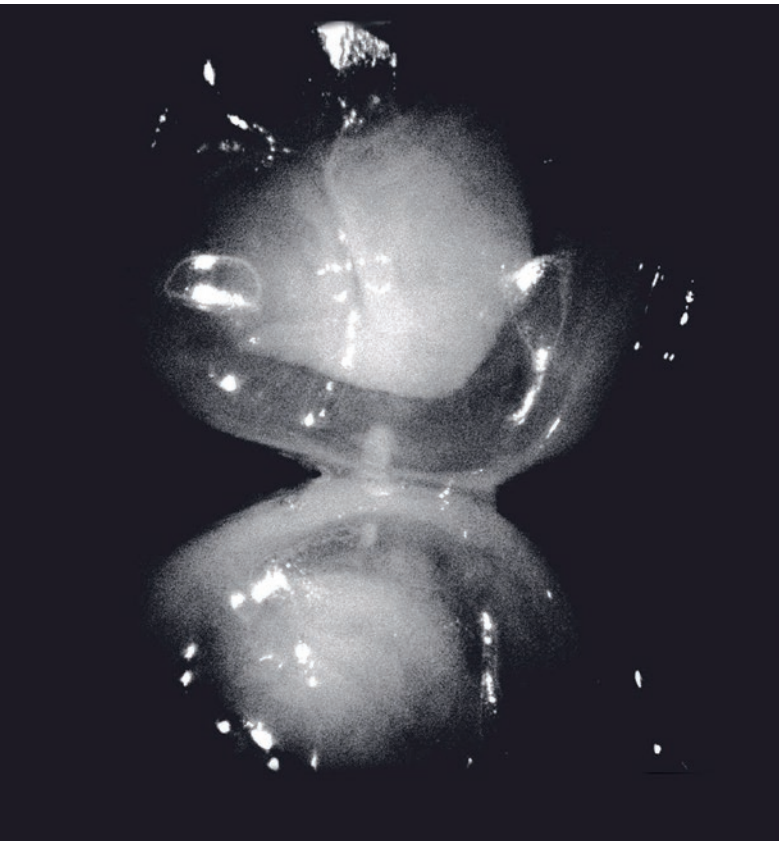
Plaque visualisation during professional dental cleaning

For visits to the dental hygienist you can offer patients a graphic illustration of where more thorough cleaning is necessary and where a hardened biofilm has already formed. Thanks to the fluorescence procedure, all you need to do to visualise the deposits is to use the Proof interchangeable head; there is no need for dental dye tablets or rinsing solutions. With the aid of 'before' and 'after' images you can also highlight the importance and added value of professional dental cleaning to your patients.

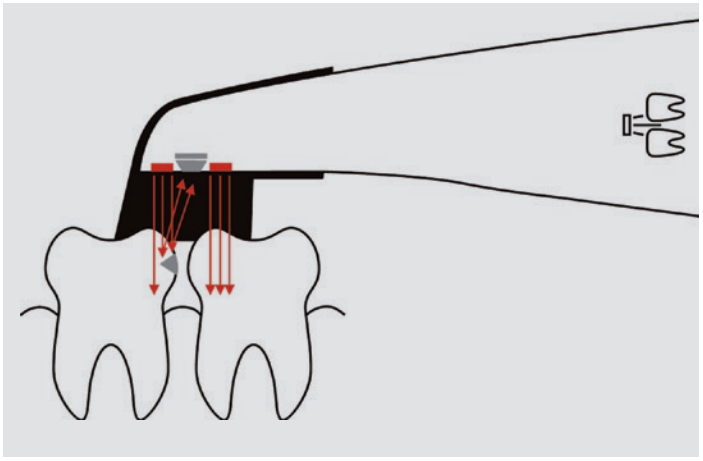
*By courtesy of Dr. Jens Hanf, Illingen

Proxi interchangeable head

Gentle and early detection of proximal caries



Safety for your patients: The Proxi interchangeable head will provide reliable assistance and help you to detect proximal caries at an early enough stage to treat it straight away. In this way, VistaCam iX HD will make the diagnosis easier without subjecting your patient to a dose of X-ray radiation – which is an important advantage particularly for children and pregnant women. The images and videos can be saved directly in the patient database, where they can be used to monitor treatment success (e.g. remineralisation or spread of caries).



Caries lesions reflect infrared light.

Key features:

- Diagnostic support without exposure to X-ray radiation, which is desirable particularly for children and pregnant women
- Proximal caries is made visible at a very early stage and can be treated immediately
- Images and videos can be saved directly to the patient database
- Treatment success can be monitored based on the images (e.g. remineralisation)
- Results are easy to visualise and easy for the patient to understand

Detection of caries lesions with the Proxi interchangeable head

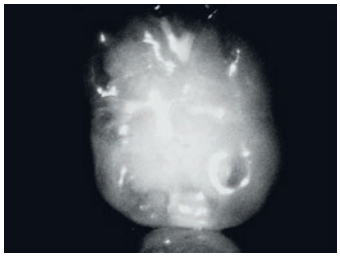
The Proxi interchangeable head with two infrared LEDs and the optical receiver is placed together with the spacer on the occlusal surface of the teeth. In the process, two adjacent teeth are illuminated by the LEDs. Due to the chosen wavelength, the tooth enamel appears slightly transparent. Healthy tooth enamel is permeable to light in the infrared spectrum and appears dark in the image (transparent).

By contrast, caries legions are white and opaque on account of the changed material structure because the infrared wavelength is refracted differently by the lesions and is largely reflected. In this way, the Proxi interchangeable head can be used for gentle and early diagnosis of proximal caries. The HD resolution of the system provides an optimal display on the screen.

Reliable detection of proximal caries

In the initial clinical situation (Fig. 1) the caries is impossible to detect either with the naked eye or with a conventional camera image. However, if the Proxi interchangeable head is used then a mesial caries lesion can be seen on tooth 36 (Fig. 2). The image taken after initial opening of the site confirms this; here, the carious region can also be seen with the naked eye (Fig. 3).

Intraoral image (Fig. 1)*



Proxi image (Fig. 2)*

Intraoperative image (Fig. 3)*

*By courtesy of Dr. Ingwert Tschürtz, Schwäbisch Gmünd

Powerful imaging software

The imaging software from Dürr Dental impresses with its user-friendly design. For example, all of the main functions can be accessed with just one click – images can both be taken and opened with one click. Caries and plaque filters display caries activity with the aid of a colour scale and a numerical value – including during live video image acquisition. And with the aid of the Dürr Dental Imaging App you can even access your image data on an iPad.

Figures, data and facts at a glance

	VistaCam iX HD
Connections	USB 2.0 (USB 3.0 compatible)
Multi-user application	Plug & play
Activation	Via buttons located on handpiece (at both top and bottom)
Handpiece weight	70 g
Handpiece length	200 mm
Cable length	2.5 m (optional extension up to 19 m via active holder with USB hub and repeater cable)
Power supply	USB (5 V)
Sensor	High performance CMOS Sensor
Driver	Uses standard Windows drivers, NO additional drivers needed
Resolution	1280 pixels (H) x 1024 pixels (V)
Illumination	2 LEDs each for Proof (405 nm, violet) and Proxi (850 nm, infrared)
Optical system	Multiple lenses with protective glass

Handpiece holder attached to a monitor

Hygienic protective covers

Optional: Active holder with USB hub

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